

burioni.ST25.txt  
SEQUENCE LISTING

<110> Burioni, Roberto

<120> HUMAN MONOCLONAL ANTIBODY FAB FRAGMENTS DIRECTED AGAINST HCV E2 GLYCOPROTEIN AND ENDOWED WITH IN VITRO NEUTRALIZING ACTIVITY

<130> 30068

<150> IT RM2002A/000049

<151> 2002-01-30

<160> 24

<170> PatentIn version 3.1

<210> 1

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1

Leu Leu Glu Gln Ser Gly Ala Glu Val Lys Met Pro Gly Ala Thr Val  
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Lys Val Ser Cys Gln Ser Ser Arg Tyr Thr Phe Thr Ser Tyr Gly Ile  
20 25 30

Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp  
35 40 45

Ile Ser Gly Tyr Thr His Glu Thr Lys Tyr Ala Gln Ser Phe Gln Gly  
50 55 60

Arg Val Thr Met Thr Ala Glu Thr Ser Thr Gly Thr Ala Tyr Met Glu  
65 70 75 80

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Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Thr Tyr Tyr Cys Ala Arg  
85 90 95

Asp Gly Gly Gly Arg Val Val Val Pro Pro Thr His Leu Arg Ala Phe  
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Asp Val Trp Gly Gln Gly Thr  
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<210> 2

<211> 104

<212> PRT

<213> Homo sapiens

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Met Ala Glu Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly  
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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser His Arg Val Asn Asn Asn  
20 25 30

Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu  
35 40 45

Ile Ser Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser  
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu  
65 70 75 80

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Asp Ser Pro  
85 90 95

Leu Tyr Ser Phe Gly Gln Gly Thr  
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<210> 3

<211> 124

<212> PRT

<213> Homo sapiens

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Leu Leu Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Thr Leu Ser  
1 5 10 15

Leu Thr Cys Thr Val Ser Gly Val Ser Ile Ser Tyr Gly Gly Arg Gly  
20 25 30

Val Ser Tyr Trp Gly Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu  
35 40 45

Trp Ile Gly His Ile Tyr Tyr Phe Gly Asp Thr Phe Tyr Asn Pro Ser  
50 55 60

Leu Asn Asn Arg Ala Thr Ile Ser Ile Asp Ser Ser Lys Asn Gln Phe  
65 70 75 80

Ser Leu Lys Leu Lys Ser Val Thr Ala Ser Asp Thr Ala Leu Tyr Phe  
85 90 95

Cys Ala Arg Ser Thr Leu Gln Tyr Phe Asp Trp Leu Leu Thr Arg Glu  
100 105 110

Ala Ala Tyr Ser Ile Asp Phe Trp Gly Gln Gly Ile  
115 120

<210> 4

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4

Met Ala Glu Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly  
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Val Thr Ile Leu  
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro Lys Ala Leu Ile  
35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly  
50 55 60

Ser Gly Ser Asp Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro  
65 70 75 80

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Glu Asp Ser Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Thr Tyr Pro Trp  
85 90 95

Thr Phe Gly Gln Gly Thr  
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<210> 5

<211> 116

<212> PRT

<213> Homo sapiens

<400> 5

Leu Leu Glu Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser Ser Val  
1 5 10 15

Lys Val Ser Cys Lys Ala Ser Gly Asp His Tyr Gly Ile Asn Trp Val  
20 25 30

Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Gly Ile Ile Pro  
35 40 45

Val Phe Gly Thr Thr Thr Tyr Ala Gln Lys Phe Gln Gly Arg Ala Thr  
50 55 60

Ile Thr Ala Asp Asp Ser Thr Gly Thr Ala Phe Leu Glu Leu Thr Arg  
65 70 75 80

Leu Thr Phe Asp Asp Thr Ala Val Tyr Phe Cys Ala Thr Pro His Gln  
85 90 95

Leu His Val Leu Arg Gly Gly Lys Ala Leu Ser Pro Trp Asp Tyr Trp  
100 105 110

Gly Gln Gly Thr  
115

<210> 6

<211> 102

<212> PRT

<213> Homo sapiens

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<400> 6

Met Ala Glu Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly  
 1 5 10 15  
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn  
 20 25 30  
 Leu Ala Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Ser Leu Leu Ile  
 35 40 45  
 Tyr Gly Thr Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser  
 65 70 75 80  
 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Ser  
 85 90 95  
 Thr Phe Gly Gln Gly Thr  
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<210> 7

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<212> PRT

<213> Homo sapiens

<400> 7

Leu Leu Glu Gln Ser Gly Ser Glu Val Lys Val Pro Gly Ser Ser Leu  
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 Lys Val Ser Cys Lys Thr Ser Gly Gly Thr Phe Ser Thr Tyr Thr Phe  
 20 25 30  
 Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Gly  
 35 40 45  
 Ile Thr Pro Ile Ile Gly Ile Ala Asn Tyr Ala Arg Asn Phe Gln Asp  
 50 55 60  
 Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Val Tyr Met Glu  
 65 70 75 80

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Val Arg Arg Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Lys  
85 90 95

Thr Ser Glu Val Thr Ala Thr Arg Gly Arg Thr Phe Phe Tyr Ser Ala  
100 105 110

Met Asp Val Trp Gly Gln Gly Thr  
115 120

<210> 8

<211> 102

<212> PRT

<213> Homo sapiens

<400> 8

Met Ala Glu Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly  
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr  
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile  
35 40 45

Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly  
50 55 60

Ser Gly Ser Trp Thr Glu Phe Thr Leu Thr Ile Ser Arg Leu Gln Pro  
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His Leu Asn Thr Tyr Pro Trp  
85 90 95

Thr Phe Gly Gln Gly Thr  
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<210> 9

<211> 118

<212> PRT

<213> Homo sapiens

<400> 9

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Leu Leu Glu Gln Ser Gly Ser Glu Val Lys Lys Pro Gly Ser Ser Val  
1 5 10 15

Arg Val Ser Cys Thr Thr Ser Gly Gly Thr Leu Ser Asp Tyr Gly Phe  
20 25 30

Asn Trp Leu Arg Gln Ala Pro Gly Gln Gly Pro Glu Trp Met Gly Gly  
35 40 45

Ile Ile Pro Leu Phe Arg Arg Thr Thr Tyr Gly Gln Lys Phe Gln Gly  
50 55 60

Arg Leu Thr Ile Thr Ala Asp Glu Ser Thr Gly Ala Thr Tyr Met Glu  
65 70 75 80

Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg  
85 90 95

Glu Lys Val Ser Val Leu Thr Gly Gly Lys Ser Leu His Tyr Phe Glu  
100 105 110

Tyr Trp Gly Lys Gly Thr  
115

<210> 10

<211> 102

<212> PRT

<213> Homo sapiens

<400> 10

Met Ala Glu Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly  
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Arg  
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Arg Gly Gln Ala Pro Ser Leu Leu Ile  
35 40 45

Tyr Asp Thr Ser Ser Arg Ala Thr Gly Val Pro Ala Arg Phe Ser Ala  
50 55 60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser  
65 70 75 80

burioni.ST25.txt

Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Ser  
85 90 95

Thr Phe Gly Gln Gly Thr  
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<210> 11

<211> 118

<212> PRT

<213> Homo sapiens

<400> 11

Leu Leu Glu Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser Ser Val  
1 5 10 15

Lys Val Ser Cys Lys Thr Ser Gly Asp Thr Phe Arg Tyr Gly Ile Thr  
20 25 30

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Gln Ile  
35 40 45

Met Pro Thr Phe Ala Thr Ala Thr Tyr Ala Gln Arg Phe Gln Gly Arg  
50 55 60

Val Thr Ile Ser Ala Asp Glu Ser Thr Ser Thr Ala Tyr Leu Glu Val  
65 70 75 80

Arg Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr Pro  
85 90 95

Arg Gln Val Thr Ile Leu Arg Gly Pro Lys Ala Leu Ser Pro Trp Asp  
100 105 110

Tyr Trp Gly Gln Gly Thr  
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<210> 12

<211> 102

<212> PRT

<213> Homo sapiens



burioni.ST25.txt

<400> 12

Met Ala Glu Leu Thr Gln Ser Pro Ala Thr Leu Ser Ala Ser Pro Gly  
 1 5 10 15  
 Glu Arg Ala Ser Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn  
 20 25 30  
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile  
 35 40 45  
 Ser Gly Ala Ser Thr Arg Ala Thr Gly Val Pro Ala Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser  
 65 70 75 80  
 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Pro  
 85 90 95  
 His Phe Gly Gln Gly Thr  
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<210> 13

<211> 357

<212> DNA

<213> Homo sapiens

<400> 13

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caggggcttg agtggatggg atggatcagc ggatacacc atgagacaaa atatgcacag	180
agtttccagg gcagagtcac catgaccgca gagacatcca cgggcacagc gtatatggag	240
ttgaggagcc tgcggtctga cgacacggcc acatattact gcgcgagaga tggaggaggg	300
aggggtggtag tgccgcctac tcatctacgt gcttttgatg tctggggtca agggacg	357

<210> 14

<211> 312

<212> DNA

<213> Homo sapiens

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<400> 14  
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cctggccagg ctcccaggct cctcatctct ggtgcatcta ccagggccac tggcatccca 180  
gacaggttca gtggcagtgg gtctggaaca gacttcactc tcaccatcag cagactggag 240  
cctgatgatt ttgcagttta ttattgtcag cagtatggtg actcacctct ttattctttt 300  
ggccagggga cc 312

<210> 15

<211> 372

<212> DNA

<213> Homo sapiens

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cagtccccag ggaagggcct ggagtggatt ggccacatct actactttgg agacaccttc 180  
tacaaccctg cctcaacaa tcgagctacc atatcaatag actcatccaa aaaccagttc 240  
tccctcaagc tcaagtctgt gactgcctca gacacggccc tgtattttctg tgccaggagc 300  
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<210> 16

<211> 306

<212> DNA

<213> Homo sapiens

<400> 16  
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gggaaacccc ctaaggccct gatttatgct gcatcgctt tgcaaagtgg ggtcccatca 180  
aggttcagcg gcagtggttc tgacacagat ttactctca caatcagcag cctacagcct 240  
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gggacc

&lt;210&gt; 17

&lt;211&gt; 348

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 17

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aaggcttctg gagaccacta tggtatcaac tgggtgacgac agggccctgg acaagggctg	120
gagtggatgg gcggtatcat ccctgtcttt ggcacaacta cctacgcaca gaagttccag	180
ggcagagcca ccattaccgc ggacgactcc acggggacgg cctttttgga gctgaccaga	240
ctgacatttg acgacacggc cgtctatttc tgtgacgacac ctcaccaact gcatgtcctc	300
cggggcggtg aagccctctc cccctgggac tactggggcc agggaacc	348

&lt;210&gt; 18

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 18

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ctctcctgca gggccagtca gagtgttagc agtaacttag cctggtacca gcagaaacgt	120
ggccaggctc ccagtctcct catctacgga acatctacca gggccactgg tatcccagcc	180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct	240
gaagattttg cagtttatta ctgtcagcag tataatgatt ggccctccac cttcggccaa	300
gggaca	306

&lt;210&gt; 19

&lt;211&gt; 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 19

ctgctcgagc agtctgggtc tgaagtaaaa gtgcccgggt cctcgttgaa ggtctcctgc	60
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aacttccagg	acagagtcac	catcacccgc	gacgaatcca	cgagcacggt	ctacatggag	240
gtgaggaggg	tgagatctga	ggacacggcc	gtatattatt	gtgcgaaaac	ttcgggaagta	300
acagccacta	gagggcgggac	tttcttctac	tccgctatgg	acgtctgggg	tcaagggacc	360

<210> 20

<211> 306

<212> DNA

<213> Homo sapiens

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ctgtctgcat	ctgtaggaga	cagagtcacc
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aattatttag	cctgggtatca	gcaaaaacca
		120
gggaaagccc	ctaagctcct	gatctatgct
gcatccactt	tgcaaagtgg	ggtcccatcg
		180
aggttcagcg	gcagtggatc	ttggacagaa
ttcactctca	caatcagccg	cctccagcct
		240
gaagattttg	caacttatta	ctgtcaacac
cttaataactt	acccgtggac	gttcggccaa
		300
gggacc		360

<210> 21

<211> 354

<212> DNA

<213> Homo sapiens

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ggtttcaact	ggttacgaca	ggccccctgga
		120
caagggcctg	agtggatggg	agggatcatc
cctttgtttc	gaagaacaac	ctacggacag
		180
aagttccagg	gcagactcac	cattaccgcg
gacgagtcca	cgggcgcaac	ctacatggag
		240
ctgagcagcc	tgagatctga	cgacacggcc
gtctattact	gtgagagaga	gaaagtttcg
		300
gtcctcacag	gcggaaagtc	actccattac
tttgaatatt	ggggcaaggg	aacc
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<211> 306

burioni.ST25.txt

<212> DNA

<213> Homo sapiens

<400> 22  
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ggccaggctc ccagtctcct catctatgac acatcttcca gggccactgg tgtcccagcc 180  
aggttcagtg ccagtgggtc tgggacgcag ttcaacttca ccatcagcag cctgcagtct 240  
gaagattttg cactttatta ctgtcagcag tataatgatt ggccctccac cttcggccaa 300  
gggaca 306

<210> 23

<211> 354

<212> DNA

<213> Homo sapiens

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gggcttgagt ggatgggaca gatcatgcct acgtttgcga cagcaaccta cgcacagagg 180  
ttccagggca gaggcacgat ttccgcggac gaatccacga gcacagccta cttggagggtg 240  
cgcagcctga gatctgaaga cacggccgtc tattactgtg cgacacctcg ccaagttact 300  
atacttcggg gacctaaagc cctctcccct tgggactact ggggcccaggg aacc 354

<210> 24

<211> 306

<212> DNA

<213> Homo sapiens

<400> 24  
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ctctcctgca gggccagtca gagggttagt agcaacttag cctggtagca gcagaaacct 120  
ggccaggctc ccaggctcct catctctggt gcatccacca gggccactgg tgtcccggcc 180  
aggttcagtg gcagtgggtc tgggacagag ttcaacttca ccatcagtag cctgcagtct 240

burioni.ST25.txt

gaagattttg cagtttatta ctgtcagcag tataataact ggcctcccca ctttggccag	300
gggacc	306